

Hurricane Preparedness

As we approach the Atlantic's peak hurricane season, mid-August through October, the 202nd Weather Flight would like to provide some essential information to help prepare you for a hurricane disaster. Courtesy of *Ready*, a public campaign seeking to "educate and empower" Americans, below is an overview of storm surge, wind scale and category ratings, and actions to take before, during, and after a hurricane effects your region. For more information, please visit <http://www.ready.gov/hurricanes>.

Storm Surge

The greatest potential for loss of life related to a hurricane is from the storm surge! Storm surge is simply water that is pushed toward the shore by the force of the winds swirling around the storm. This advancing surge combines with the normal tides to create the hurricane storm tide, which can increase the mean water level to heights impacting roads, homes and other critical infrastructure. In addition, wind driven waves are superimposed on the storm tide. This rise in water level can cause severe flooding in coastal areas, particularly when the storm tide coincides with the normal high tides. Because much of the United States' densely populated Atlantic and Gulf Coast coastlines lie less than 10 feet above mean sea level, the danger from storm tides is tremendous.

The storm surge combined with wave action can cause extensive damage, severely erode beaches and coastal highways. With major storms like Katrina, Camille and Hugo, complete devastation of coastal communities occurred. Many buildings withstand hurricane force winds until their foundations, undermined by erosion, are weakened and fail.

Saffir-Simpson Hurricane Wind Scale

The Saffir-Simpson Hurricane Wind Scale classifies hurricanes into five categories based on their sustained wind speed at the indicated time. The Saffir-Simpson Hurricane Wind Scale provides information on wind impacts only. The scale does not address the potential for other hurricane-related impacts, such as storm surge, rainfall-induced floods, and tornadoes.

Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and property. Category 1 and 2 storms are still dangerous, however, and require preventive measures.

Saffir-Simpson Hurricane Scale		
Category	Wind Speed (mph)	Wind Speed (knots)
5	>155	>135
4	131-155	114-135
3	111-130	96-113
2	96-110	83-95
1	74-95	64-82
Additional Classifications		
Tropical Storm	39-73	34-63
Tropical Depression	< 39	< 34

Preparing for a Hurricane:

- To begin preparing, you should build an emergency kit and make a family communications plan.

- Learn the elevation level of your property and whether the land is flood-prone. This will help you know how your property will be affected when storm surge or tidal flooding are forecasted.
- Identify levees and dams in your area and determine whether they pose a hazard to you.
- Learn community hurricane evacuation routes and how to find higher ground. Determine where you would go and how you would get there if you needed to evacuate.
- Make plans to secure your property:
 Cover all of your home's windows. Permanent storm shutters offer the best protection for windows. A second option is to board up windows with 5/8" exterior grade or marine plywood, cut to fit and ready to install. Another year-round option would be installation of laminated glass with impact-resistant glazing. Tape does not prevent windows from breaking.
- Install straps or additional clips to securely fasten your roof to the frame structure. This will reduce roof damage.
- Be sure trees and shrubs around your home are well trimmed so they are more wind resistant.
- Clear loose and clogged rain gutters and downspouts.
- Reinforce your garage doors--if wind enters a garage it can cause dangerous and expensive structural damage.
- Determine how and where to secure your boat.
- Install a generator for emergencies.
- If in a high-rise building, when high winds are present, be prepared to take shelter on a lower floor because wind conditions increase with height, and in a small interior room without windows. When flooding may be occurring, be prepared to take shelter on a floor safely above the flooding and wave effects.
- Consider building a safe room.

During a Hurricane:

If a hurricane is likely in your area, you should:

- Secure your home, close storm shutters and secure outdoor objects or bring them indoors.
- Turn off utilities if instructed to do so. Otherwise, turn the refrigerator thermostat to its coldest setting and keep its doors closed.
- Turn off propane tanks.
- Avoid using the phone, except for serious emergencies.
- Moor your boat if time permits.
- Ensure a supply of water for sanitary purpose such as cleaning and flushing toilets. Fill the bathtub and other larger containers with water.
- You should evacuate under the following conditions:

- If you live in a mobile home or temporary structure – such shelters are particularly hazardous during a hurricane, no matter how well fastened to the ground.
- If you live in a high-rise building – hurricane winds are stronger at higher elevations.
- If you live on the coast, on a floodplain, near a river, or on an island waterway.
- If you are unable to evacuate, go to your wind-safe room. If you do not have one, follow these guidelines:
 - Stay indoors during the hurricane and away from windows and glass doors.
 - Close all interior doors – secure and brace external doors.
 - Keep curtains and blinds closed. Do not be fooled if there is a lull; it could be the eye of the storm – winds will pick up again.
 - Take refuge in a small interior room, closet or hallway on the lowest level.
 - Lie on the floor under a table or another sturdy object.
 - Avoid elevators.

After a Hurricane

- Continue listening to a NOAA Weather Radio or the local news for the latest updates.
- Stay alert for extended rainfall and subsequent flooding even after the hurricane or tropical storm has ended.
- If you have become separated from your family, use your family communications plan or contact the American Red Cross at 1-800-RED-CROSS/1-800-733-2767 or visit the American Red Cross Safe and Well site: www.safeandwell.org
- If you evacuated, return home only when officials say it is safe.
- If you cannot return home and have immediate housing needs. Text SHELTER + your ZIP code to 43362 (4FEMA) to find the nearest shelter in your area (example: shelter 12345).
- For those who have longer-term housing needs, FEMA offers several types of assistance, including services and grants to help people repair their homes and find replacement housing. Apply for assistance or search for information about housing rental resources.
- Drive only if necessary and avoid flooded roads and washed-out bridges. Stay off the streets. If you must go out, watch for fallen objects, downed electrical wires, and weakened walls, bridges, roads, and sidewalks.
- Keep away from loose or dangling power lines and report them immediately to the power company.
- Walk carefully around the outside your home and check for loose power lines, gas leaks and structural damage before entering.
- Stay out of any building if you smell gas, floodwater remains around the building, or your home was damaged by fire and the authorities have not declared it safe.

- Inspect your home for damage. Take pictures of damage, both of the building and its contents, for insurance purposes. If you have any doubts about safety, have your residence inspected by a qualified building inspector or structural engineer before entering.
- Use battery-powered flashlights in the dark. Do NOT use candles. Note: The flashlight should be turned on outside before entering - the battery may produce a spark that could ignite leaking gas, if present.
- Watch your pets closely and keep them under your direct control. Watch out for wild animals, especially poisonous snakes. Use a stick to poke through debris.
- Avoid drinking or preparing food with tap water until you are sure it's not contaminated.
- Check refrigerated food for spoilage. If in doubt, throw it out.
- Wear protective clothing and be cautious when cleaning up to avoid injury.
- Use the telephone only for emergency calls.
- NEVER use a generator inside homes, garages, crawlspaces, sheds, or similar areas, even when using fans or opening doors and windows for ventilation. Deadly levels of carbon monoxide can quickly build up in these areas and can linger for hours, even after the generator has shut off.